



RECEIVED
FEB 07 2002
TECH CENTER 1600/291

SEQUENCE LISTING

<110> Ronald
Schouten, Govert J.
Bout, Abraham

<120> Means and Methods for Fibroblast-Like or Macrophage-Like Cell
Transduction

<130> 2183-3982.2US

<140> 09/517,898

<141> 2000-03-03

<150> 60/122,732

<151> 1999-03-03

<160> 35

<170> PatentIn version 3.1

<210> 1

<211> 23

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Primer HSA-2

<400> 1

aattgtctta attaaccgct taa

23

<210> 2

<211> 19

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Primer HSA-2

<400> 2

aattgtctta attaaccgct

19

<210> 3

<211> 19

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Primer HSA-2

<400> 3

aattgcggtt aattaagac

19

<210> 4
<211> 27
<212> DNA
<213> Unknown Organism
<220>
<223> Description of Unknown Organism: Primer HSA-2

<400> 4
gggggatccg aacttggtta ttgcagc

27

<210> 5
<211> 25
<212> DNA
<213> Unknown Organism
<220>
<223> Description of Unknown Organism: Primer HSA-2

<400> 5
gggagatcta gacatgataa gatac

25

<210> 6
<211> 27
<212> DNA
<213> Unknown Organism
<220>
<223> Description of Unknown Organism: Primer HSA-2

<400> 6
gggagatctg tactgaaatg tgtgggc

27

<210> 7
<211> 24
<212> DNA
<213> Unknown Organism
<220>
<223> Description of Unknown Organism: Primer HSA-2

<400> 7
ggaggctgca gtctccaacg gcgt

24

<210> 8
<211> 47
<212> DNA
<213> Unknown Organism
<220>
<223> Description of Unknown Organism: Primer HSA-2

<400> 8
ctgtacgtac cagtgcactg gcctaggcat ggaaaaatac ataactg

47

<210> 9
 <211> 64
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer HSA-2

 <400> 9 60
 gcggatcctt cgaaccatgg taagcttggt accgctagcg ttaaccgggc gactcagtca
 64
 atcg

 <210> 10
 <211> 28
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer HSA-2

 <400> 10 28
 gcgccaccat gggcagagcg atggtggc

 <210> 11
 <211> 47
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer HSA-2

 <400> 11 47
 ctgtacgtac cagtgcactg gcctaggcat ggaaaaatac ataactg

 <210> 12
 <211> 64
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer HSA-2

 <400> 12 60
 gcggatcctt cgaaccatgg taagcttggt accgctagcg ttaaccgggc gactcagtca
 64
 atcg

 <210> 13
 <211> 50
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer HSA-2

 <400> 13 50
 gttagatcta agcttgctga catcgatcta ctaacagtag agatgtagaa

<210> 14
 <211> 47
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer HSA-2

<400> 14 47
 ctgtacgtac cagtgcactg gcctaggcat ggaaaaatac ataactg

<210> 15
 <211> 64
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer LTR-2

<400> 15 60
 gcggatcctt cgaaccatgg taagcttggt accgctagcg ttaaccgggc gactcagtca
 atcg 64

<210> 16
 <211> 10
 <212> DNA
 <213> Adenoviral fragment

<400> 16 10
 ttaagtcgac

<210> 17
 <211> 32
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer

<400> 17 32
 ggggtggcca gggtagctct aggcttttgc aa

<210> 18
 <211> 29
 <212> DNA
 <213> Unknown Organism
 <220>
 <223> Description of Unknown Organism: Primer

<400> 18 29
 ggggggatcc ataaacaagt tcagaatcc

<210> 19
<211> 35
<212> DNA
<213> Adenovirus Serotypes

<400> 19
cccgtgtatc catatgatgc agacaacgac cgacc

35

<210> 20
<211> 27
<212> DNA
<213> Adenovirus Serotypes

<400> 20
cccgtctacc catatggcta cgcgcg

27

<210> 21
<211> 27
<212> DNA
<213> Adenovirus Serotypes

<400> 21
cckgtstacc catatgaaga tgaaagc

27

<210> 22
<211> 31
<212> DNA
<213> Adenovirus Serotypes

<400> 22
cccgtctacc catatgacac ctyctcaact c

31

<210> 23
<211> 36
<212> DNA
<213> Adenovirus Serotypes

<400> 23
cccgtttacc catatgaccc atttgacaca tcagac

36

<210> 24
<211> 30
<212> DNA
<213> Adenovirus Serotypes

<400> 24
ccgatgcatt tattgttggg ctatatagga

30

<210> 25
<211> 30
<212> DNA
<213> Adenovirus Serotypes

<400> 25
ccgatgcatt yattcttggg cratatagga

30

<210> 26
<211> 36
<212> DNA
<213> Adenovirus Serotypes

<400> 26
ccgatgcatt tattcttggg raatgtawga aaagga

36

<210> 27
<211> 30
<212> DNA
<213> Adenovirus Serotypes

<400> 27
ccgatgcatt cagtcattctt ctctgatata

30

<210> 28
<211> 30
<212> DNA
<213> Adenovirus Serotypes

<400> 28
ccgatgcatt tattgttcag ttatgtagca

30

<210> 29
<211> 30
<212> DNA
<213> Adenovirus Serotypes

<400> 29
gccatgcatt tattgttctg ttacataaga

30

<210> 30
<211> 37
<212> DNA
<213> Adenovirus Serotypes

<400> 30
ccgttaatta agcccttatt gttctgttac ataagaa

37

<210> 31
 <211> 30
 <212> DNA
 <213> Adenovirus Serotypes

<400> 31
 ccgatgcatt cagtcacgt ctwtaata

30

<210> 32
 <211> 1068
 <212> DNA
 <213> Adenovirus Ad5/fib16 Chimeric Fiber

<400> 32
 atgaagcgcg caagaccgtc tgaagatacc ttcaaccccg tgtatccata tgaagatgaa 60
 agcagctcac aacacccctt tataaacctt gggttcattt cctcaaattg ttttgcacaa 120
 agcccagatg gagttctaac tcttaaatgt gttaatccac tcaactaccg cagcggaccc 180
 ctccaactta aagttggaag cagtcttaca gtagatacta tcgatgggtc tttggaggaa 240
 aatataactg ccgaagcgc actcactaaa ctaaccactc cataggttta ttaataggat 300
 ctggcttgca aacaaaggat gataaacttt gtttatcgct gggagatggg ttggtacaa 360
 aggatgataa actatgttta tcgctgggag atgggttaat aacaaaaaat gatgtactat 420
 gtgccaaact aggacatggc cttgtgtttg actcttccaa tgctatcacc atagaaaaca 480
 acaccttggt gacaggcgc aaaccaagcg ccaactgtgt aattaaagag ggagaagatt 540
 cccagactg taagctcact ttagttctag tgaagaatgg aggactgata aatggataca 600
 taacattaat gggagcctca gaataacta acaccttggt taaaacaatc aagttacaat 660
 cgatgtaaac ctgcatttg ataatactgg ccaattatt acttacctat catcccttaa 720
 aagtaacctg aactttaag acaacaaaa catggctact ggaaccataa ccagtgcacaa 780
 aggttcatg cccagcacca ccgcctatcc atttataaca tacgccactg agaccctaaa 840
 tgaagattac atttatggag agtggtacta caaatctacc aatggaactc tctttccact 900
 aaaagttact gtcacactaa acagacgtat gttagcttct ggaatggcct atgctatgat 960
 ttttcatggt ctctaaatgc agaggaagcc ccggaaacta ccgaagtcac tctcattacc 1020
 tcccccttct tttttctta tatcagagaa gatgactgaa tgcattag 1068

<210> 33
 <211> 1062
 <212> DNA
 <213> Adenovirus Ad16 Fiber

<400> 33
 atggccaaac gagctcggct aagcagctcc ttcaatccgg tctacccta tgaagatgaa 60
 agcagctcac aacaccctt tataaacctt ggtttcattt cctcaaagg ttttgcacaa 120
 agcccagatg gagttctaac tcttaaagt gttaatccac tcaactaccg cagcggaccc 180
 ctccaactta aagttggaag cagtcttaca gtagatacta tcgatgggtc tttggaggaa 240
 aatataactg ccgcagcgcc actcactaaa actaaccact ccatagggtt attaatagga 300
 tctggcttgc aaacaaagga tgataaactt tgtttatcgc tgggagatgg gttggtaaca 360
 aaggatgata aactatgttt atcgctggga gatgggttaa taacaaaaaa tgatgtacta 420
 tgtgccaaac taggacatgg ccttgtgttt gactcttcca atgctatcac catagaaaac 480
 aacaccttgt ggacaggcgc aaaaccaagc gccaaactgt taattaaaga gggagaagat 540
 tccccagact gtaagctcac tttagttcta gtgaagaatg gaggactgat aaatggatac 600
 ataacattaa tgggagcctc agaataact aacaccttgt ttaaaaacaa tcaagttaca 660
 atcgatgtaa acctcgcatt tgataatact ggccaaatta ttacttacct atcatccctt 720
 aaaagtaacc tgaactttaa agacaaccaa aacatggcta ctggaaccat aaccagtgcc 780
 aaaggcttca tgcccagcac caccgcctat ccatttataa catacgccac tgagacccta 840
 aatgaagatt acatttatgg agagtgttac tacaaatcta ccaatggaac tctctttcca 900
 ctaaaagtta ctgtcacact aacagacgt atgtagctt ctggaatggc ctatgctatg 960
 aatttttcat ggtctctaaa tgcagaggaa gccccgaaa ctaccgaagt cactctcatt 1020
 acctccccct tctttttttc ttatatcaga gaagatgact ga 1062

<210> 34
 <211> 353
 <212> PRT
 <213> Chimaeric Ad5/Fib16

<400> 34

Met Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro
 1 5 10 15

Tyr Glu Asp Glu Ser Ser Ser Gln His Pro Phe Ile Asn Pro Gly Phe
 20 25 30

Ile Ser Ser Asn Gly Phe Ala Gln Ser Pro Asp Gly Val Leu Thr Leu
35 40 45

Lys Cys Val Asn Pro Leu Thr Thr Ala Ser Gly Pro Leu Gln Leu Lys
50 55 60

Val Gly Ser Ser Leu Thr Val Asp Thr Ile Asp Gly Ser Leu Glu Glu
65 70 75 80

Asn Ile Thr Ala Ala Ala Pro Leu Thr Lys Thr Asn His Ser Ile Gly
85 90 95

Leu Leu Ile Gly Ser Gly Leu Gln Thr Lys Asp Asp Lys Leu Cys Leu
100 105 110

Ser Leu Glu Asp Gly Leu Val Thr Lys Asp Asp Lys Leu Cys Leu Ser
115 120 125

Leu Gly Asp Gly Leu Ile Thr Lys Asn Asp Val Leu Cys Ala Lys Leu
130 135 140

Gly His Gly Leu Val Phe Asp Ser Ser Asn Ala Ile Thr Ile Glu Asn
145 150 155 160

Asn Thr Leu Trp Thr Gly Ala Lys Pro Ser Ala Asn Cys Val Ile Lys
165 170 175

Glu Gly Glu Asp Ser Pro Asp Cys Lys Leu Thr Leu Val Leu Val Lys
180 185 190

Asn Gly Gly Leu Ile Asn Gly Tyr Ile Thr Leu Met Gly Ala Ser Glu
195 200 205

Tyr Thr Asn Thr Leu Phe Lys Asn Asn Gln Val Thr Ile Asp Val Asn
210 215 220

Leu Ala Phe Asp Asn Thr Gly Gln Ile Ile Thr Tyr Leu Ser Ser Leu
225 230 235 240

Lys Ser Asn Leu Asn Phe Lys Asp Asn Gln Asn Met Ala Thr Gly Thr
245 250 255

Ile Thr Ser Ala Lys Gly Phe Met Pro Ser Thr Thr Ala Tyr Pro Phe
260 265 270

Ile Thr Tyr Ala Thr Glu Thr Leu Asn Glu Asp Tyr Ile Tyr Gly Glu
 275 280 285

Cys Tyr Tyr Lys Ser Thr Asn Gly Thr Leu Phe Pro Leu Lys Val Thr
 290 295 300

Val Thr Leu Asn Arg Arg Met Leu Ala Ser Gly Met Ala Tyr Ala Met
 305 310 315 320

Asn Phe Ser Trp Ser Leu Asn Ala Glu Glu Ala Pro Glu Thr Thr Glu
 325 330 335

Val Thr Leu Ile Thr Ser Pro Phe Phe Phe Ser Tyr Ile Arg Glu Asp
 340 345 350

Asp

<210> 35
 <211> 353
 <212> PRT
 <213> Adenovirus Ad16/Fiber

<400> 35

Met Lys Arg Ala Arg Pro Ser Glu Asp Thr Phe Asn Pro Val Tyr Pro
 1 5 10 15

Tyr Glu Asp Glu Ser Ser Ser Gln His Pro Phe Ile Asn Pro Gly Phe
 20 25 30

Ile Ser Ser Asn Gly Phe Ala Gln Ser Pro Asp Gly Val Leu Thr Leu
 35 40 45

Lys Cys Val Asn Pro Leu Thr Thr Ala Ser Gly Pro Leu Gln Leu Lys
 50 55 60

Val Gly Ser Ser Leu Thr Val Asp Thr Ile Asp Gly Ser Leu Glu Glu
 65 70 75 80

Asn Ile Thr Ala Ala Ala Pro Leu Thr Lys Thr Asn His Ser Ile Gly
 85 90 95

Leu Leu Ile Gly Ser Gly Leu Gln Thr Lys Asp Asp Lys Leu Cys Leu
 100 105 110

Ser Leu Glu Asp Gly Leu Val Thr Lys Asp Asp Lys Leu Cys Leu Ser
115 120 125

Leu Gly Asp Gly Leu Ile Thr Lys Asn Asp Val Leu Cys Ala Lys Leu
130 135 140

Gly His Gly Leu Val Phe Asp Ser Ser Asn Ala Ile Thr Ile Glu Asn
145 150 155 160

Asn Thr Leu Trp Thr Gly Ala Lys Pro Ser Ala Asn Cys Val Ile Lys
165 170 175

Glu Gly Glu Asp Ser Pro Asp Cys Lys Leu Thr Leu Val Leu Val Lys
180 185 190

Asn Gly Gly Leu Ile Asn Gly Tyr Ile Thr Leu Met Gly Ala Ser Glu
195 200 205

Tyr Thr Asn Thr Leu Phe Lys Asn Asn Gln Val Thr Ile Asp Val Asn
210 215 220

Leu Ala Phe Asp Asn Thr Gly Gln Ile Ile Thr Tyr Leu Ser Ser Leu
225 230 235 240

Lys Ser Asn Leu Asn Phe Lys Asp Asn Gln Asn Met Ala Thr Gly Thr
245 250 255

Ile Thr Ser Ala Lys Gly Phe Met Pro Ser Thr Thr Ala Tyr Pro Phe
260 265 270

Ile Thr Tyr Ala Thr Glu Thr Leu Asn Glu Asp Tyr Ile Tyr Gly Glu
275 280 285

Cys Tyr Tyr Lys Ser Thr Asn Gly Thr Leu Phe Pro Leu Lys Val Thr
290 295 300

Val Thr Leu Asn Arg Arg Met Leu Ala Ser Gly Met Ala Tyr Ala Met
305 310 315 320

Asn Phe Ser Trp Ser Leu Asn Ala Glu Glu Ala Pro Glu Thr Thr Glu
325 330 335

Val Thr Leu Ile Thr Ser Pro Phe Phe Phe Ser Tyr Ile Arg Glu Asp
340 345 350

Asp